INEOS ABS

INEOS ABS (USA) Corporation
356 Three Rivers Parkway
Addyston, OH 45001

Tel (513) 467-2400
Fax (513) 467-2241

www.ineos.com

January 15, 2013

Attn: Compliance Tracker, AE-17J
Air Enforcement and Compliance Assurance Branch
U.S. Environmental Protection Agency Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

RE: Consent Decree Civil Action No. 1:09-CV-545
Effective Date February 4, 2010

Dear Sirs:

Please find attached the Semiannual Report for the Second Half 2012. Please contact me at (513) 467-2470 or michele.smith@ineos.com if you have any questions concerning the submitted information.

Respectfully Submitted,

Michele A. Smith, P.E.
Lead Environmental Engineer
INEOS ABS (USA) Corporation

cc: M. Palmero, USEPA Region 5
T. Kalman, OEPA
G. Bachmann, Ohio AG
M. Kramer, SWOAQA

INEOS ABS (USA) CORPORATION'S ADDYSTON, OH PLANT CONSENT DECREE SEMIANNUAL REPORT

Consent Decree Civil Action No. 1:09-CV-545
Effective Date February 4, 2010

Reporting Period: 07/01/12 – 12/31/12

I. INTRODUCTION

The following report contains the required information about INEOS ABS' compliance activities associated with the requirements in Paragraph 50 a. and 50 b. in the Consent Decree.

II. COMPLIANCE REQUIREMENTS

Per Section VI (Compliance Requirements) of the Consent Decree, INEOS ABS met the following compliance requirements:

A. FLARE COMPLIANCE REQUIREMENTS

1. Steam-to-Vent Gas Ratio < 3.6 to 1 as a 1-hour Block Average (Paragraph 18 a.)
   No deviations in the second half of 2012.
2. Net Heating Value of Vent Gas > 385 BTU/scf as a 1-hour Block Average (Paragraph 18 b.)
   This is no longer a requirement.
3. NHVFG > 200 BTU/scf as a 1-hour Block Average (Paragraph 19)
   No deviations in the second half of 2012.
4. Flare Monitoring Requirements (Paragraph 20 & 23)
   Required data was measured, calculated, and recorded at all times that the Process P001 Flare was in operations and reports were submitted quarterly as stated in the Quarterly Reports submitted on October 9, 2012 and January 8, 2013.
5. Flare Monitoring Instruments Standard Operating Procedure (SOP) (Paragraphs 21 & 22)
   The SOP was submitted on March 5, 2010. Conditional approval from U.S. EPA was received on June 7, 2010. INEOS ABS submitted a Notice of Dispute on June 24, 2010, which has yet to be resolved.
6. Passive FTIR (Paragraph 24)
   The Passive FTIR Work Plan was submitted August 17, 2009 and a revised Passive FTIR Work Plan was submitted September 28, 2009. The U.S. EPA approved the Passive FTIR Work Plan on October 28, 2009. The testing was performed November 3 through November 5, 2009. The Passive FTIR Test Report was submitted on July 6, 2010, and a Supplemental Report was submitted on August 6, 2010.
7. P001 Process Evaluations (Paragraph 25)
   Ambient air monitoring began at a new monitoring station (Kibby Lane Monitoring Station) in August 2012. Detections of 1,3-butadiene at the monitoring station occurred on August 16, September 9, 12, 18 and 24, and November 23. Evaluations for all events were reported to Southwest Ohio Air Quality Agency within 15 days of receiving the sampling results.

B. BIOFILTER PROJECT

1. Biofilter Work Plan (Paragraph 28)

   The Biofilter Work Plan was submitted on March 19, 2010 and approved by Ohio EPA on April 14, 2010.

2. Biofilter Operations and Monitoring Plan (Paragraph 28 a.)

   The Biofilter Operations and Monitoring Plan was submitted on April 18, 2011.

3. Quarterly Deviation Reports (Paragraph 28 b.)

   Quarterly Deviation Reports were submitted on July 30, 2012 and October 23, 2012. Semiannual Deviation Report was submitted on July 23, 2012.

4. Biofilter Installation Schedule (Paragraph 29)

   Construction of Phase I of the Biofilter was completed on December 2, 2010. Construction of Phase II was completed on June 24, 2011.

C. EMISSION UNIT P035 SCRUBBER PROJECT

This emission unit continues to be idle and hence there are no compliance requirements for this project (Paragraphs 30 & 31).

D. MAIN DUCT LEAK DETECTION AND REPAIR (LDAR) STANDARD OPERATING PROCEDURE (SOP)

The Main Duct LDAR SOP was submitted for approval on March 5, 2010 and the first inspection using this SOP was performed on June 25, 2010.
The Main Duct LDAR SOP was approved by the U.S. EPA on July 26, 2010 with comments. A revised Main Duct LDAR SOP was submitted on September 8, 2010. This revised Main Duct SOP was implemented during the 2011 Main Duct yearly inspection performed on June 30, 2011.

E. ENHANCED LEAK DETECTION AND REPAIR (APPENDIX A)

1. Part A: General

   A written facility-wide LDAR Program Plan was written by May 4, 2010. The Plan was reviewed and updated on December 29, 2011. The Plan was reviewed and updated on November 28, 2012.

2. Part B: Monitoring Frequency

   Monitoring frequencies were increased on January 1, 2010 (prior to the Effective Date of the Consent Decree). There were three instances where monitoring was not performed in the required timeframe in the second half 2012. See Part IV.A., C., and D. below for details.

3. Part C: Monitoring Methods and Equipment

   Method 21 is being used to perform monitoring of all Covered Equipment using a Toxic Vapor Analyzer 1000B Flame Ionization Detector attached to a datalogger which directly electronically records the required data. The monitoring data is transferred to an electronic database daily as of January 1, 2010. As of January 1, 2010 (prior to the Effective Date of the Consent Decree), calibration of the LDAR monitoring equipment is being performed per Method 21 and calibration drift assessment are performed prior to and completion of each monitoring shift.

4. Part D: LDAR Action Levels

   Lower leak repair action levels were implemented on January 1, 2010 (prior to the Effective Date of the Consent Decree).

5. Part E: Leak Repairs

   As of February 4, 2010, Quasi-Directed Maintenance is being performed during all repair attempts. There was one instance where rescreen testing was not completed within the required timeframe. See Part IV.B. below for details. Twenty-three leaking valves were repaired in the second half of 2012. Drill and tap repairs were not performed as there is a significant safety risk to perform drill and tap on valves in HAP service as the materials inside the piping is flammable and/or highly explosive.

6. Part F: Delay of Repair (DOR)

   As of January 1, 2010 (prior to the Effective Date of the Consent Decree), the plant manager or his designee signs all DOR. As of March 5, 2010, the Covered Equipment on the DOR list continues to be monitored at their required frequency.

7. Part G: Equipment Replacement/Improvement Program (ERIP)

   A list of all valves in the LDAR Program was submitted on March 5, 2010. Attachment #1 includes additional information on the ERIP, including each piece of equipment replaced or improved in the second half of 2012 and the schedule for future replacements or upgrades.

8. Part H: Management of Change (MOC)

   MOC is being completed at the facility. All MOC documentation requires a review by the Environmental Department.

9. Part I: Training

   General training for all employees was completed in November 2011. Annual refresher training was completed in the second half of 2012.

10. Part J: Quality Assurance/Quality Control (QA/QC)

    On a daily basis, technicians are certifying that the data collected represents that monitoring performed. Two QA/QC audits were completed on August 24, 2012 and December 18, 2012. Corrective actions are still being addressed from these audits.

11. Part K: LDAR Audits and Corrective Actions

    The LDAR External Audit was completed on September 13, 2012. The Corrective Action Plan for the 2012 external audit was completed on October 1, 20121 and submitted to U.S. EPA for approval on January 8, 2013. All corrective actions identified in the plan have been completed.

12. Part L: Certification of Compliance

    The 2010 Certificate of Compliance was submitted on February 14, 2011.

13. Part M: Recordkeeping

    All records are being kept as required in Appendix A of the Consent Decree.

14: Part N: Reporting

    The 2012 First Half Compliance Status Report was submitted on July 12, 2012.

F. PERMITS

The PTI application for the Biofilter was submitted to the Ohio Environmental Protection Agency on May 16, 2011. No other permits were required to be completed and/or submitted in the first half of 2012 (Paragraphs 35 through 39). The Final PTI was issued on October 12, 2011.

G. CERCLA/EPCRA REQUIREMENTS

1. Spill/Release Reporting Policy (Paragraph 41)
   There was no requirement to revise the policy during the second half of 2012.
2. Reportable Quantity Root cause Analysis (Paragraph 42)
   There were no reportable quantity air releases in the second half of 2012.
3. Training (Paragraph 43)
   Training on Spill Response Procedures was completed in April 2012.
4. Program Evaluation and Report (Paragraph 44 through 47)
   No evaluation or report was required the second half of 2012. A review of the TRI report for reporting year 2011 was completed on May 31, 2012 (Paragraph 44 b.).
5. Program Evaluation Corrective Actions (Paragraph 48)
   No corrective actions were required in the first half of 2012.

H. AMBIENT AIR MONITORING

The monitoring station at Meredith Hitchens Elementary School was dismantled in late October 2011 due to the change in ownership of the building. Starting on November 11, 2012, HCDES began collecting grab samples at the ground level near the school every six days; they ceased grab samples in January 2012. Ambient air monitoring began at a new monitoring station (Kibby Lane Monitoring Station) in August 2012. INEOS ABS continued to reimburse HCDES for costs associated with the analysis of ambient air samples.

III. COSTS INCURRED DURING PERIOD

Per Paragraph 50 a. of the Consent Decree, the following costs were incurred by INEOS ABS during the second half of 2012:

LDAR Technician/Maintenance	$285,000
Equipment Replacements (Pumps/Valves)	$ 39,538
LDAR Equipment/Database Contract	$ 4,094
LDAR External Audit	$ 19,224
Contractor Monitoring of Connectors	$ 20,364
Total	$368,220

IV. NONCOMPLIANCE WITH CONSENT DECREE

Per Paragraph 50 b. of the Consent Decree, INEOS ABS submitted the following letters of noncompliance to the U.S. EPA and Ohio EPA during the first half of 2012:

A. LDAR Missed Monitoring – Letter Dated August 1, 2012

Eighteen pumps and seven agitators in our P047 Process Unit were not monitored in July 2012. The process unit ran the first six days of the month and shut down for maintenance reasons. No LDAR monitoring was performed these days as the LDAR Technician and Administrator were on vacation. The Process Unit was to resume operations at the end of the month. During the shutdown, it was determined that the unit would not restart in July for inventory control reasons. As the pumps and agitators were not monitored within the first six days of the month, they were not monitored in July. In addition, one agitator (#04958) in our Process Unit P004 was not monitored in July 2012. Process Unit P004 did not operate in July 2012. However, even if a process unit is down, some of the

components may still be in service as they may be used by another process unit. In July, Process Unit P015 was operating and agitator #04958 was used, but not monitored. This agitator was overlooked. Training has been completed to prevent this from occurring again.

B. LDAR Missed Retest Monitoring – Letter Dated September 24, 2012

One open-ended line (#10534) was discovered leaking on September 17th and repaired on September 19th. The component was not monitored until September 21st. This monitoring was completed within the five-day repair period, but was not completed the first business day after the repair as required in Appendix A of the Consent Decree.

C. LDAR Internal Audit – Fourth Quarter 2012

The LDAR program at this facility contains close to 16,000 components. We have had three third-party audits performed (Conestoga-Rovers in 2010, Environmental Quality Management in 2011, and TRC Environmental in 2012) that confirmed the LDAR inventory and resulted in the discovery of only one missed component.

Nevertheless, as we have previously disclosed, internal inspections after those audits were conducted uncovered additional components that have not been included in the LDAR inventory. Frustrated by these discoveries, we completed a comprehensive internal audit of the entire facility. This audit resulted in the discovery of several components that were not included in the LDAR Inventory, several components that did not meet the requirement to be in the LDAR program, and several components that were in the LDAR inventory twice (i.e., an open-ended line also in the inventory as a connector). This audit started in third quarter 2012 and was completed in fourth quarter 2012. The audit resulted in the discovery of the following components that were not included in the LDAR inventory and the removal of the following components from the LDAR inventory:

Process Unit	No. of Valves		No. of OELs		No. of Connectors	
	Added	Deleted	Added	Deleted	Added	Deleted
P001	15	21	4	2	173	284
P004	12	0	11	0	239	85
P015	18	0	23	0	272	145
P021	1	1	1	0	82	55
P042	28	33	36	4	776	384
P047	14	2	12	0	522	251
P048	1	0	3	0	85	26

D. LDAR Missed Monitoring – Letter Dated January 8, 2013

In process unit P004, 711 connectors were not monitored in calendar year 2012. The process unit shut down unexpectedly due to an equipment malfunction in October. The equipment could not be repaired by the end of the year. Connectors were scheduled to be monitored in this process unit in November. The connectors will be monitored within one week of the process unit startup, which is tentatively planned for late January 2013.

In process unit P015, 26 connectors and three difficult-to-monitor valves were not monitored in calendar year 2012. In 2012, this area was in operation for less than one week in May. During that time, all valves, open-ended line, and pumps were monitored. In May 2012, it was not known that this product would not be scheduled for the remainder of the year. Current plans have this area of the process unit used

next in December 2013. At that time, all connectors, valves, open-ended lines, and pumps will be monitored.

V. CERTIFICATION

I certify under penalty of law that I have examined and am familiar with the information in the enclosed documents, including all attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for knowingly submitting false statements and information, including the possibility of fines or imprisonment pursuant to Section 113(c)(2) of the Act, and 18 U.S.C.§§ 1001 and 1341.

Respectfully Submitted,

Eric Cassisa
Site Manager, NAFTA
INEOS ABS (USA) Corporation

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INEOS ABS (USA) CORPORATION'S ADDYSTON, OH PLANT
CONSENT DECREE SEMIANNUAL REPORT
ATTACHMENT # 1
Equipment Replacement/Improvement Program

Consent Decree Civil Action No. 1:09-CV-545
Effective Date February 4, 2010

Reporting Period: 07/01/12 – 12/31/12

INEOS ABS - Addyston Plant
LDAR ERIP Outstanding Improvement

01/09/2013

Tag #	Process Unit	Component Description	Leak Detected	Replace/ Repack By Date
01051	EMUL	Valve-Manual vent on top of Bd sphere	08/23/12	At next passivation
6012	EMUL/ TK FM	Autoblock on top of sphere to compressor house	03/10/11	At next passivation
6025	EMUL/ TK Fm	Bd unloading charge line to sphere drain valve south of dike wall	03/17/12	At next passivation
07981	DIN1/ TK Fm	C1 Recirculation inlet valve	03/06/12	Next time tank is emptied
07984	DIN1/ Tk Fm	Valve-C1 Level indicator outlet valve	11/13/11	Next time C1 tank is emptied
10483	DIN1/ TK FM	AN transfer line drain valve inside tunnel-south side at ground	08/25/12	Next time C1 tank is emptied after 1st shutdown 4Q12
11221	DIN1/ TK Fm	C1 Auto Valve on inlet side of transfer pump	03/06/12	Next time C1 tank is emptied after 1st shutdown 4Q13
04441	EMUL	Valve-pressure gauge on water separator recirc line	11/29/12	At next passivation
08286	EMUL	Valve-Relief bypass valve at inlet side of filter	11/29/12	At next passivation
09037	EMUL	Water separator outlet valve to Bd storage tank	10/11/12	At next passivation
02374	DIN1	Valve-R2 Reflux receiver rec valve	12/19/12	At next maintenance shutdown
02376	DIN1	Valve-R2 reflux block valve from recvr to water bomb	12/19/12	At next maintenance shutdown
02746	DIN1	Manual valve outlet for R2 feed tank vent on R2 reactor dome platform	12/29/12	At next maintenance shutdown
09084	DIN2	Bottom reflux rcvr bomb-manusla valve to outlet to organic trap	10/25/12	At next maintenance shutdown
09936	SAN1	N2 purge to pre-mix tank manual valve for pressure gauge	11/01/12	At next maintenance shutdown

INEOS ABS - Addyston Plant
LDAR Leaker Replacements/Repackings - Greater than 250 ppm Leak

01/09/2013

Tag #	Process Unit	Component Description	Leak Detected	Date Replaced	Date Repacked	Shutdown Reqd?	Replace/ Repack By Date
04385	EMUL	Valve-C kettle AN charge line	11/09/12	12/05/12		YES	12/09/12
07107	EMUL	Valve-Auto block vavle at E Mon II	06/22/12	07/03/12		NO	07/22/12
			08/25/12				09/24/12
6039	EMUL	Valve-Water seperator pressure gauge on recirc line	03/09/12	07/25/12		YES	NA
00795	DIN1	Valve-A13 feed line from tank to pumps	02/28/12		07/18/12	YES	NA
01398	DIN1	Valve-AN totalizer outlet drain	08/29/12	09/21/12			09/28/12
02593	DIN1	Valve-Styrene line in north side of R1 feed tree	03/20/12	07/12/12		YES	NA
03004	DIN1	Valve-Styrene AutoXV into irganox mix tank	08/20/12	11/15/12		YES	
6182	DIN1	Valve-East AN filter manual drain	08/29/12	09/21/12			09/28/12
08549	DIN	Valve-Irganox XV valve for styrene at top of tank	08/23/12	11/14/12		YES	
09310	DIN1	Valve-AN High point vent at RR tracks	03/15/12	07/12/12		YES	NA
01981	DIN2	Valve-AMS in R1 Feed Tree to Reflux Recvr	10/25/12	11/17/12		NO	11/24/12
08431	DIN2	Valve-Vent spray manual valve	10/29/12	11/17/12		NO	11/28/12
08455	DIN2	Valve-Catalyst to R2 at melt line	10/20/12	10/20/12		NO	11/19/12
10143	DIN2	Valve-DIN2 rubr slurry tank recycle drain	10/20/12	11/15/12		NO	11/19/12
10169	DIN2	Valve-Rubber filters outlet valve west bank	06/06/12	07/25/12		NO	07/06/12
04186	DN1	Valve-Reflux receiver manual vent	10/04/12	12/07/12		YES	
07898	DN 1	Valve-outlet side of chiller before contactor	04/19/12	07/26/12		YES	NA
09111	DN1	Valve- MACT collection tank man vent	04/30/12	07/26/12		YES	NA
6220	SSET	Valve-BNS cat feed line	12/17/12	12/19/12		NO	01/16/13

INEOS ABS - Addyston Plant
LDAR Leaker Replacements/Repackings - Between 100 ppm and 250 ppm Leak
October 1, 2011 - December 31, 2011

01/09/2013

Tag #	Process Unit	Component Description	Leak Detected	Conc. (ppm)	Date Replaced	Date Repacked
02096	DIN2	Valve-AN to process by contactor	10/13/11	197	07/12/12	

INEOS ABS - Addyston Plant
LDAR Leaker Replacements/Repackings - Between 100 ppm and 250 ppm Leak
January 1, 2012 - March 31, 2012

01/09/2013

Tag #	Process Unit	Component Description	Leak Detected	Conc. (ppm)	Date Replaced	Date Repacked
00826	DIN1	Outlet valve on west pump in A13	02/28/12	202	07/18/12	

INEOS ABS - Addyston Plant
LDAR Leaker Replacements/Repackings - Between 100 ppm and 250 ppm Leak
April 1, 2012 - June 30, 2012

01/09/2013

Tag #	Process Unit	Component Description	Leak Detected	Conc. (ppm)	Date Replaced	Date Repacked
08452	DIN2	MEK Manual block valve in catalyst dike	05/15/12	114	07/26/12	
11097	DIN2	R-1 Recycle drain valve at strainer	06/05/12	136		07/25/12

INEOS ABS - Addyston Plant
LDAR Leaker Replacements/Repackings -
Between 100 ppm and 250 ppm Leak
July 1, 2012 - September 30, 2012

01/09/2013

Tag #	Process Unit	Component Description	Leak Detected	Conc. (ppm)	Date Replaced	Date Repacked
01397	DIN1	AN totalizer outlet valve	08/29/12	116	11/17/12	
6269	DIN1	Stripper to Spent Monomer drain valve on outlet side of flow meter	08/22/12	162	11/14/12	
03862	DN1	South AN filter manual outlet valve	08/17/12	122	11/14/12	
03863	DN1	South AN filter manual outlet valve	08/17/12	102	11/14/12	
08257	DN1	West styrene inlet block valve	08/17/12	115	11/15/12	